September 9, 2024

Daniel Fernandez
Planning Division
City of Lee's Summit
220 SE Green
Lee's Summit, MO 6463

Re: PL2024191 - HCA Midwest Lots 1C & 1D

Final Development Plan Comment Response Letter

Dear Daniel Fernandez,

The following are responses to your comments received on August 09, 2024, for the above-referenced project:

Engineering Review – Gene Williams, P.E.

1. Jurisdictional determination for the stream shall be evaluated and completed prior to approval of this project. It is our understanding this jurisdictional determination is currently being reviewed by the U.S. Army Corps of Engineers.
   Response: *Acknowledged, USACE coordination is ongoing and the jurisdictional determination will be provided upon receipt.*

2. The stormwater report entitled "Drainage Design Summary" dated Jul. 24, 2024 (hereinafter referred to as "the stormwater study") did not appear to meet the Comprehensive Control Strategy adopted by the City of Lee's Summit. The Comprehensive Control Strategy requires release rates for the 2, 10, and 100 year events to be less than or equal to 3.0 cfs, 2.0 cfs, and 0.5 cfs per acre of drainage area respectively. Please evaluate and revise the methodology as appropriate.
   Response: *The stormwater study now provides attenuation to meet the City of Lee's Summit's Comprehensive Control Strategy.*

3. The stormwater study did not address the emergency spillway in accordance with Section 5600 of the Kansas City APWA, which the City has adopted by reference with modifications. Please review Section 5600 for the emergency spillway design standards, and revise as appropriate.
   Response: *The emergency spillway design has been modified to meet Section 5600 of the APWA standards.*

4. The stormwater study was missing an analysis of the downstream receiving system to ensure the installation of a detention basin meeting the Comprehensive Control Strategy will not create increased peak flows downstream. Recommend an analysis to a downstream point to be identified by the engineer to ensure this does not occur. If it is shown that detention meeting the Comprehensive Control Strategy will create an adverse situation (i.e., see above), water quality measures such as a dry detention basin or other measures listed in Section 5600 to manage the 90% mean annual event will still be required. Please analyze and revise the stormwater report as appropriate.
   Response: *The downstream analysis is now provided in the stormwater study showing the development has no negative impacts, but rather improves the condition.*

5. The stormwater report should present definitive statement that the basin meets the Comprehensive Control Strategy within the body of the report. Please revise as appropriate.
   Response: *This definitive statement has been added to the "Conclusion" section of the stormwater study.*

6. A waiver to the stream buffer shall be required for the piers supporting the pedestrian bridge. Standard template form shall be forwarded separately from these comments. Staff shall support the waiver, but please be aware the City Engineer is the City representative responsible for granting waivers.
   Response: *Acknowledged, a waiver will be submitted as required for the pedestrian bridge.*

7. Sheet C6.3: Is there a particular reason the emergency spillway is shown with a concrete bottom? Typical installations within the City are grass-lined.
   Response: *The emergency spillway is now shown as grass bottomed. Please refer to the revised details on sheet C6.3.*

8. Sheet C6.3: A bold note shall be shown on the detention basin sheet stating that "DETENTION BASIN SHALL BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE PARKING LOT", and "AN AS-GRADED AND AS-BUILT DETENTION BASIN PLAN SHALL BE SUBMITTED AND ACCEPTED BY THE CITY OF LEE'S SUMMIT PRIOR TO ISSUANCE OF A CERTIFICATE OF SUBSTANTIAL COMPLETION" or equivalent language.
   Response: *This note has been added to the Detention Basin Details sheet.*

9. Recommend re-naming Sheet C6.3 to "Detention Basin Detail Sheet" or equivalent language.
   Response: *Sheet C6.3 has been renamed to "Detention Basin Details".*

10. Detention basin detail sheet shall include the following items as in aid in creating the post construction as-built: 1) Top of dam elevation, 2) Emergency spillway elevation, 3)

All weir and orifice elevations that are part of the outlet structure, 4) 100 year nominal (i.e., design) storage volume, 5) Bottom of basin elevation, 6) Bottom of basin slope callouts, which may be less than 2% to achieve water quality objectives (i.e., we have seen as little as 0.5% in some instances to achieve water quality objectives), 7) 100 year nominal (i.e., design) water surface elevation (WSE), 8) 100 year clogged/zero available storage WSE, 9) Graphical limits of the 100 year clogged/zero available storage WSE (i.e., shown on the plan view with callouts), along with dimensional callouts from property lines and buildings to ensure a minimum 20 foot setback, 10) Typical section view of the outlet works and dam, along with elevation callouts for the 100 year nominal and 100 year clogged/zero available storage to ensure there is a minimum 0.5 feet freeboard between the nominal condition and the crest of the emergency spillway, and a minimum 1.0 feet from the clogged condition/zero available storage and the top of dam, 11) Location and callouts showing the emergency spillway, and a clear path that is not directed towards buildings or other other vulnerable features. Please revise as appropriate.
Response: *The Detention Basin Details sheet has been revised to include this information.*

11. A profile view of the outlet pipe serving the detention basin shall be required. Please provide a profile view of this line, along with the 100 year HGL on the profile view in graphic format.
Response: *A profile view of the detention basin outlet pipe is now provided on sheet C6.3. Please refer to the stormwater study attachments for the profile view of the outlet pipe with the 100-year HGL.*

12. The small water quality orifice at the bottom of the outlet structure does not appear to meet standards due to the small diameter. Normally, a perforated riser with small orifices is required when the diameter is small. Please evaluate and revise as appropriate, and ensure there are measures for allowing for future maintence (e.g., raking the perforated riser to remove debris, accessway to to the outlet structure, stairs if appropriate, etc.).
Response: *Please refer to the revised Detention Basin Details sheet where the small water quality orifice has been modified to prevent clogging and other maintenance issues.*

13. It did not appear any proposed grading was shown from the outlet structure rip rap to the receiving creek. Please show how the discharge from the detention basin will be directed towards the creek.
Response: *Grading and rip rap is now provided at the outlet structure pipe headwall.*

14. Rip rap calculations and sizing were not shown. Please provide calculations of rip rap, and please include the sizing of the rip rap, depth of rip rap, width of rip rap, length of rip

rap, and notation concerning the use of geofabric under the rip rap. Please analyze and revise as appropriate.
Response: *Rip rap details and sizing is now provided in the Site Details sheet C8.0.*

15. It would appear that discharging stormwater from the parking lot towards "curb cuts" (i.e., flumes) is not an appropriate method for stormwater management in this particular instance. Recommend curb inlet(s) and pipe(s) directed to the bottom of the detention basin. Discharging this volume of stormwater at a 3:1 slope will create backcutting issues over time. Please revise as appropriate.
Response: *The curb cuts have been eliminated and replaced with a curb inlet and headwall.*

16. Bridge general layout references "structural plans". It does not appear we have these "structural plans". Are you intending to submit these after approval of the Final Development Plan in the form of a material submittal similar to retaining walls? If so, bridge shall be designed and sealed by a registered design professional registered in the State of Missouri. No portion of the bridge shall be allowed to be constructed prior to this submittal (i.e., the final design signed and sealed by a design professional registered in the State of Missouri).
Response: *The pedestrian bridge will be permitted separately from the Final Development Plan. The signed and sealed engineering plans for the pedestrian bridge will be included within the future Building Permit submittal (which will occur after FDP approval).*

17. Asphaltic concrete pavement sections do not meet the Unified Development Ordinance (UDO) requirements in terms of pavement thickness, base, or subgrade stabilization/geogrid. The typical sections shown in the plans reference the geotechnical report, but the geotechnical report states the pavement design is beyond the scope of the geotechnical report. Therefore, the City standard UDO is considered a minimum requirement unless a new geotechnical report is submitted with actual field sampling. If this is desired, there are criteria that will need to be submitted to you to use in your design. If not, the UDO standard design shall be acceptable. The UDO standard design for asphaltic concrete pavement is 1) heavy duty where emergency vehicles and trash trucks will have access is 6.5 inches of KCMMB asphaltic concrete over a minimum 6 iniches aggregate over a chemically-stabilized subgrade base or geogrid, and 2) normal duty asphaltic concrete shall consist of 5.5 inches KCMMB asphaltic concrete mix over the same items descibed for subgrade and base for heavy duty ashphaltic concrete (see above). Please review and revise as appropriate.
Response: *The asphalt pavement detail has been revised to meet the City of Lee's Summit UDO standards.*

18. A site-specific plan for the PUBLIC ADA-accessible ramps on Cumberland Dr. is required. This plan shall provide elevation callouts, slope callouts for the longitudinal

and transverse directions, and truncated dome callouts with dimesions from the truncated domes to the ADA-accessible entrance. No more than 7.5% running slope (i.e., longitudinal) is allowed, and no more than 1.5% cross-slope (i.e., transverse slope) is allowed, with construction allowance up to and including 8.33% and 2.00% respectively. No more than 5.00 feet shall be allowed between the end of the truncated domes and the "travelled-way". Please update plans as appropriate.
Response: *Callouts are now provided at the driveway crossing to utilize the City of Lee's Summit standard details. The plans have been updated accordingly to meet the City requirements.*

19. Sidewalk that is part of the public sidewalk system in the right of way shall not include reinforcement. Please do not use welded wire fabric. In addition, the note on the sidewalk standard detail says "2% max, 1% minimum" is not correct. The City has adopted more stringent design standards that go above and beyond PROWAG. The maximum design cross-slope is 1.5%, and 7.5% for running slope. If the as-built condition shows less than 8.33% and less than 2.00%, they will be accepted. Please revise the plans as appropriate.
Response: *The sidewalk within the public right-of-way along SE Cumberland is now noted to use the Lee's Summit standard details. The sidewalk standard detail for the rest of the site has been updated to note a maximum cross slope of 1.5% and a maximum longitudinal slope of 7.5%.*

20. Why is there a minimum cross slope of sidewalk of 1%? We have seen instances where the cross slope is 0% with a running slope of 1%+/- to manage stormwater flows. There is no reason to include a "minimum cross slope" unless the sidewalk will not drain. Please revise as appropriate.
Response: *The minimum cross slope note has been removed from the sidewalk detail.*

21. Parking lot plan is incomplete. Please provide a plan that includes ADA-accessibility. This shall include elevation callouts, slope callouts, dimensional callouts, and and all other information necessary to perform a review of the ADA-accessibility of the parking lot. ADA-accessible spaces shall be clearly shown with details. Please review, revise, and update as appropriate, and ensure there is an ADA-accessible route from the parking lot to the final destination.
Response: *No ADA spaces are proposed for the remote parking lot because the existing hospital campus already exceeds the required ADA space requirement (please see sheet C5.0 for the existing ADA space locations). Accessible spaces are also required to be the closest spaces to the building they are serving. Therefore the remote parking lot is exempt from these ADA requirements due to the hospital already exceeding the ADA space requirements and the remote parking lot's location.*

22. Landscape Plan: It is difficult to determine where the City sanitary sewer line is located in relation to trees, as well as City water main. Please show the location of City-owned utilities on the project including sanitary sewer, water lines, and storm lines. Ensure there is a minimum of 5.0 feet from the outside of the mature tree trunk to the outside of any storm line, sanitary sewer line, and water line or sanitary sewer structure or storm structure. Please be aware this does not apply to small ornamental shrubs. Please evaluate, revise, and update as appropriate.
Response: *The Landscape Plan now shows the location of existing utility lines.*

23. Prior to formal approval, an itemized and sealed Engineer's Estimate of Probable Construction Costs is required. Please do not include the cost of buildings used in the hospital campus, lighting, or landscaping.
Response: *Acknowledged, a cost estimate will be provided at a later resubmittal, prior to final approval.*

Planning Review – Claire Byers

1. Please provide lighting elevations.
Response: *Lighting elevations are provided within the cutsheets that are included with the Photometric Plans.*

2. Please provide signage in new parking lot directing public to location of ADA parking stalls, since no stalls are proposed as part of expansion. Add note to plans that this signage is required/will be put in place.
Response: *Required signage is now provided in the remote parking lot, which provides directions to ADA parking spaces located with the main hospital campus.*

Traffic Review – Erin Ralovo

1. Sheet DP-C5.1 - The ADA on the east side of the bridge is not marked.
Response: *The Overall Layout Plan (sheet C5.0) now shows the locations of the existing ADA parking spaces.*

2. There are 2 signs at the crosswalk across the driveway are not labeled.
Response: *The pedestrian crosswalk signs are now labeled.*

3. Please remove the painted crosswalk at Cumberland Dr.
Response: *The crosswalk striping at Cumberland Drive has been removed.*

4. Signs should installed in the new lot directing drivers to ADA spaces in the main lot.
Response: *Required signage is now provided in the remote parking lot, which provides directions to ADA parking spaces located with the main hospital campus.*

Building Codes Review – Joe Frogge

1. Inadequate information to complete review. Provide the following: - Light pole base detail. - Water/DWV pipe sizes and materials. - Specify type of connection at sanitary main. - Complete grease trap designs.
   Response: *The light pole base detail is now provided in the Photometric Plans. The water and sewer service line pipe sizes and materials are provided in the keynotes table. The sanitary sewer connection type is specified as well. The completed grease trap design will be provided during the Building Permit submittal.*

Fire Review – Jim Eden

1. Provide and post a SE Cumberland address, or something different from the existing address for the hospital parking lot.
   Response: *701 SE Cumberland Drive is the proposed address for the remote parking lot.*

Please review the above responses together with the revised plans and let me know if you have questions or need additional information.

Regards,

Catalyst Design Group

Jack Parker, PE; LEED AP
Principal, Senior Project Manager